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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,397	08/09/2001	Yuan-Chi Chang	YOR9-2001-0287 (8728-514)	4473
46069 7590 02/26/2009 F. CHAU & ASSOCIATES, LLC 130 WOODBURY ROAD WOODBURY, NY 11797				
EXAMINER EHICHIOYA, FRED I				
ART UNIT		PAPER NUMBER		
2169				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/925,397

**Applicant(s)**

CHANG ET AL.

**Examiner**

FRED I. EHICHIOYA

**Art Unit**

2169

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20 - 24, 24, 26 - 31 and 33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20 - 24, 24, 26 - 31 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-884)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

### DETAILED ACTION

1. This Office Action is responsive to communication filed November 3, 2008.
2. Claims 1 – 19, 25, 32, and 34 – 39 have been cancelled.
3. Claims 20 - 24, 26 – 31 and 33 are pending in this Office Action.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20 - 24, 26 – 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Non Patent Literature (NPL) "Dynamic Generation and Refinement of Concept Hierarchies for Knowledge Discovery in Databases by Han et al., (Hereinafter "Han") in view of NPL "AN environment for content-based image retrieval from large spatial databases by Agouris et al., (Hereinafter "Agouris").

Regarding claims 20 and 27, Han discloses a method for processing multimedia data in a computer system, comprising:

receiving as input a high-level concept describing data to be accessed (see page 166, section 5.1, paragraph 1: *"a convenient graphics user interface is being developed for users to input concept hierarchies at both the schema level (e.g., address (City C Province C Country)) and the individual concept level"*);

translating the high-level concept into a low-level query by using stored concept constructs (see page 161, example 3.1, paragraph 3: *“the mapping of higher level concepts in the query (or learning task) to their corresponding lower level data”*) which are defined using features derived from a plurality of application domains (see page 158, section 2.1, paragraph 2: *“A concept hierarchy can be defined on one or a set of attribute domains”*), wherein the stored concept constructs are each represented using a hierarchical fuzzy graph data tree-structure comprising nodes that correspond to child-concepts (see page 158, section 2.1, paragraph 1: *“A concept hierarchy defines a sequence of mappings from a set of lower-level concepts to their higher-level correspondences. Such mappings may organize the set of concepts in partial order, such as in the shape of a tree (a hierarchy, a taxonomy), a lattice, a directed acyclic graph, etc., although they are still called “hierarchies” for convenience”*) and a subset of the features (see page 158, paragraph 2: *“a subset of data”*).

Han does explicitly disclose transferring the low-level query as claimed.

Agouris discloses aggregation edges that correspond to parent-child relationships, and association edges between siblings that correspond to inter-sibling constraints (see Fig. 4 and page 267, column 1: *“sketch is first matched against the features at the parent level in the tree. The process then progresses to child, grandchild and other levels as necessary”* – see also the hierarchical levels i.e. *“the primary parent level”, “the child level” and “grandchild level” on page 267 - 268; these parent-child and siblings relationships*); and transferring the low-level query to one or more search engines to access information using the low-level query (see page 263, section 1, column 2: *“low-*

*level image properties (e.g., colour and dominant pattern) are often adequate for information retrieval”).*

It would have been obvious to one of ordinary skill at the data processing art at the time of present invention to combine the cited references because Agouris' teaching of using the low-level properties for the search would enable Han system to solve the problem of content-based image retrieval using on shape and topology as suggested by Agouris (see Abstract).

Regarding claims 21 and 28, Han discloses a method as defined in Claim 20, further comprising:

storing the concept constructs in a concept library module (see page 166, section 5.2: *concept hierarchy base is analogous to concept library module*);

storing matching algorithms in a matching algorithm library module (see page 166, section 5.2: *algorithm(s) on the data stored in a database is analogous to matching algorithms in a matching algorithm library*).

Han does not explicitly disclose feature library as claimed.

Agouris discloses storing the features in a feature library module (see Fig. 2); and storing constraints in a constraint library module (see page 270, column 2, paragraph 4: *a temporal constraint is analogous to constraint library*).

It would have been obvious to one of ordinary skill at the data processing art at the time of present invention to combine the cited references because Agouris' teaching of feature library would enable Han system to provide the crucial link that allows us to

reduce the search space of a query from a large image database to an abridged group of features as suggested by Agouris on page 265, column 2, paragraph 2.

Regarding claims 22 and 29, Agouris discloses a method as defined in Claim 21, further comprising interfacing the library modules to the application domains (see Fig. 2).

Regarding claims 23 and 30, Han discloses a method as defined in Claim 21, further comprising building a concept construct (see page 158, section 2.1, paragraphs 1 and 2: *Defining concept hierarchy is analogous to building a concept construct*).

Regarding claims 24 and 31, Agouris discloses a method as defined in Claim 23, wherein the step of building a concept construct comprise combining one or more of the features with zero or more of the stored concept and zero or more of the constraints (see page 268, section 5, paragraph 1).

Regarding claims 26 and 33, Agouris discloses a method as defined in Claim 20, wherein the features are user defined (see page 263, "abstract": *"user-provided sketches of the shape and spatial configuration of the object (or objects)"*).

### **Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRED I. EHICHIOYA whose telephone number is (571)272-4034. The examiner can normally be reached on M - F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pierre M. Vital can be reached on 571-272-4215. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Fred I. Ehichioya/  
Examiner, Art Unit 2169